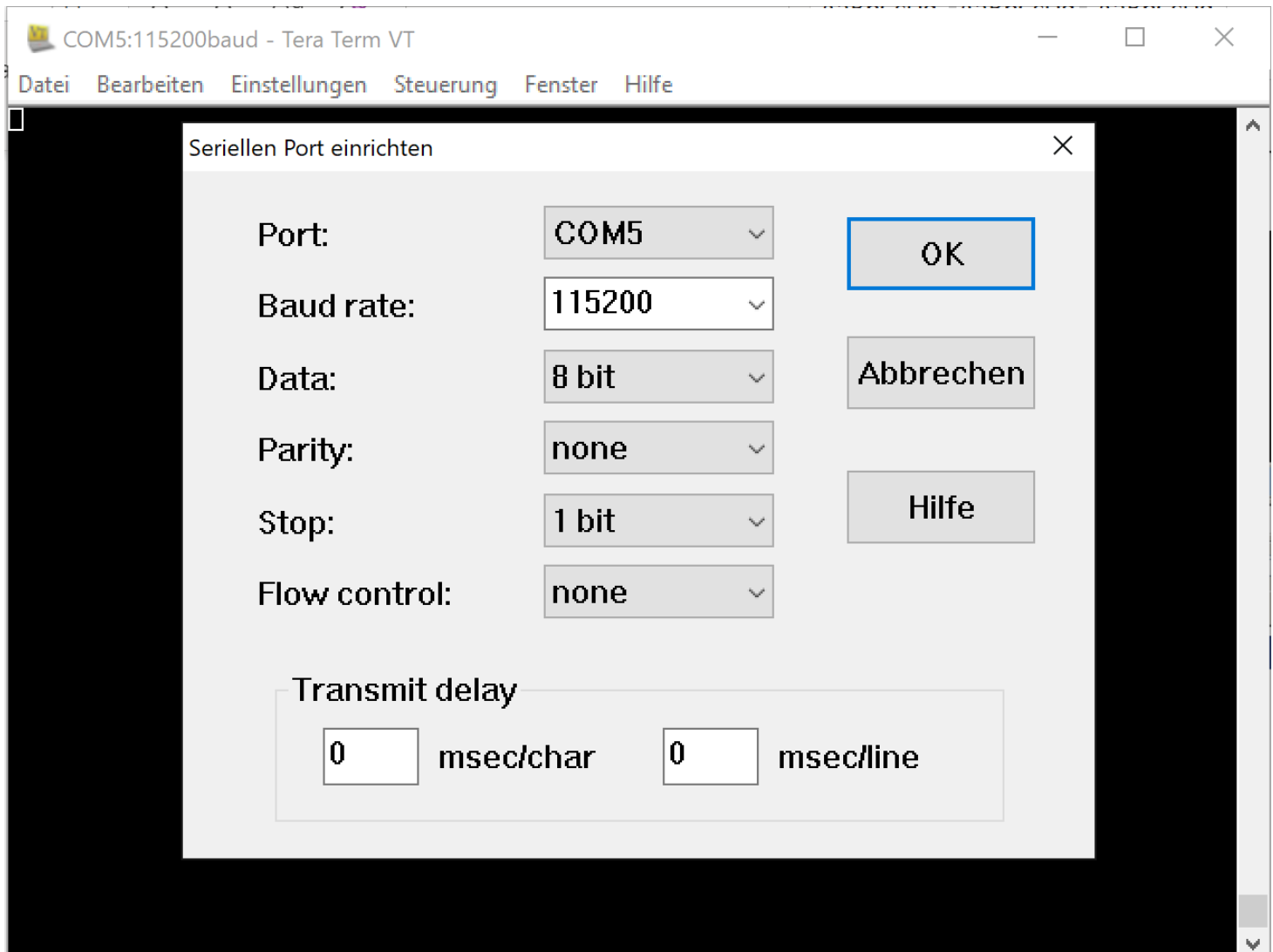


Using the xPico200 Manufacturing Test Loader

Step 1. Open Tera Term, set it to the COM port that you are using, and ensure that the parameters are 8/N/1.

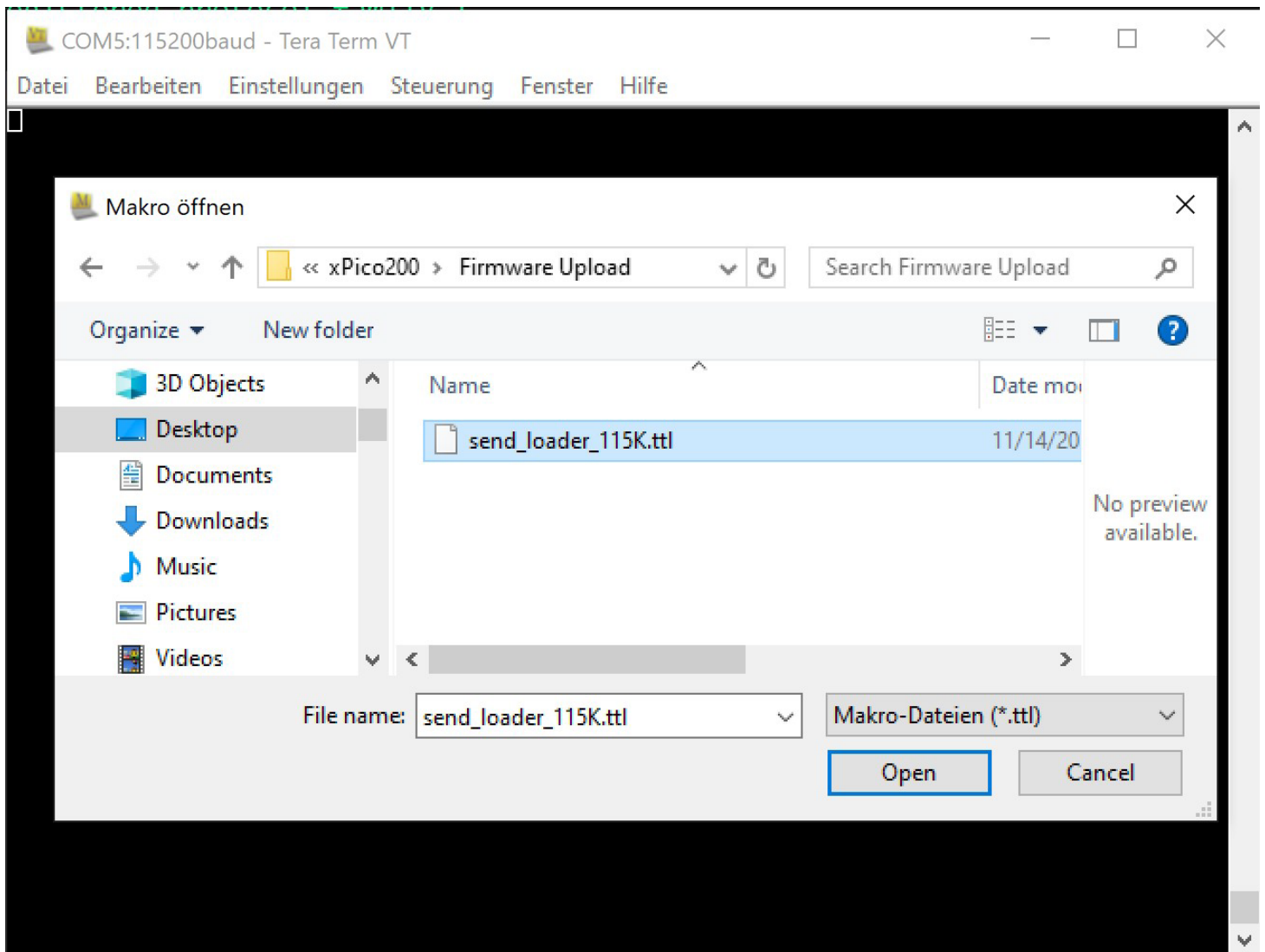
Ensure that Tera Term is fairly current. The version I'm using is 4.104.



Step 2. Run the loader macro.

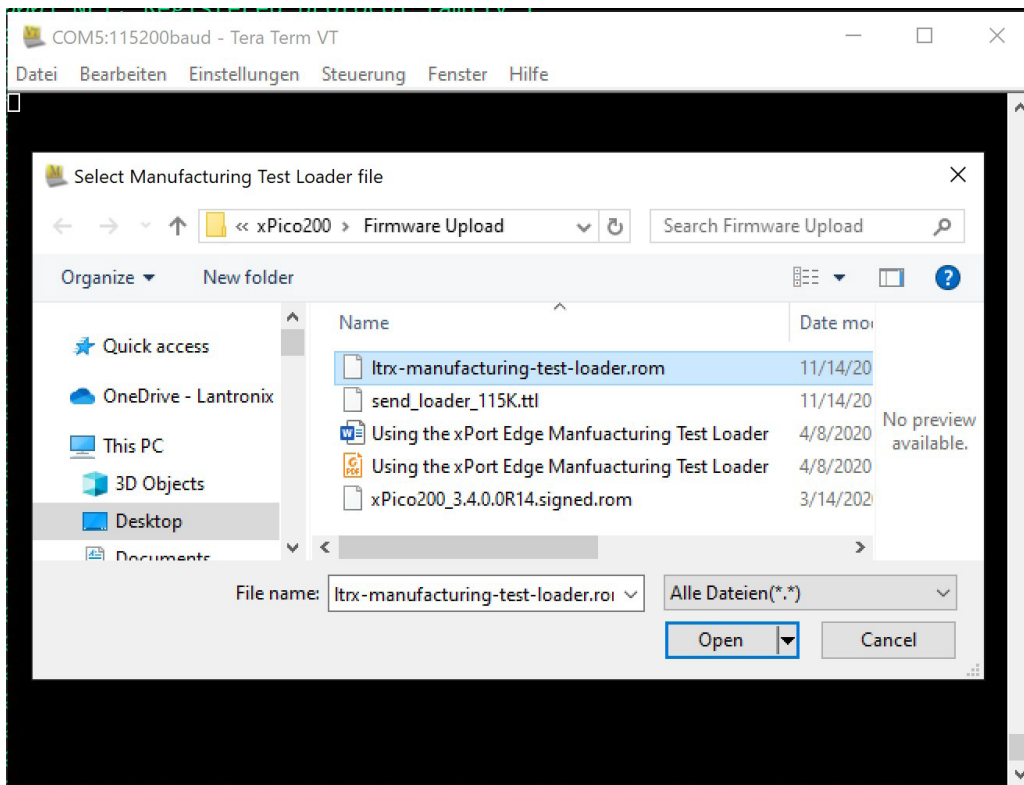
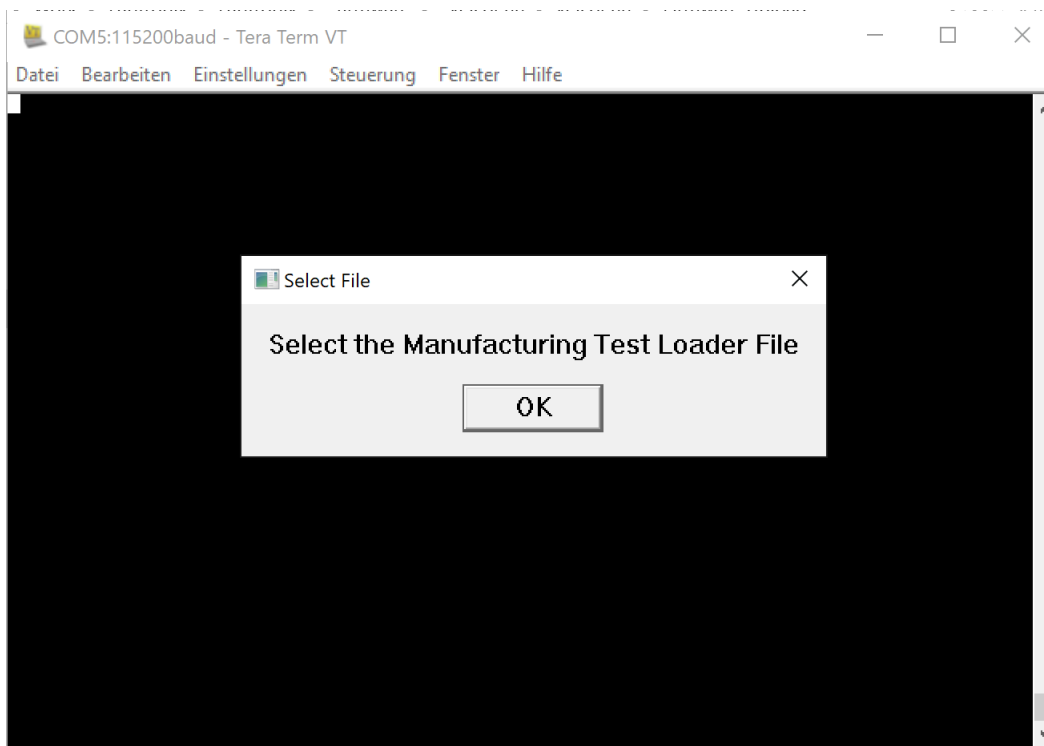
Make sure the xPico200 is turned off at this point. We'll power it on later, in step 4.

From the Tera Term Control menu, choose the Macro menu item. This will bring up a selection dialog; navigate to the loader macro location, select it, click OK.



Step 3. Send the loader ROM file.

The macro will prompt you for the loader file you want to send over. Again, navigate to where it is located (if it is not located in the same directory as the loader script), select it.

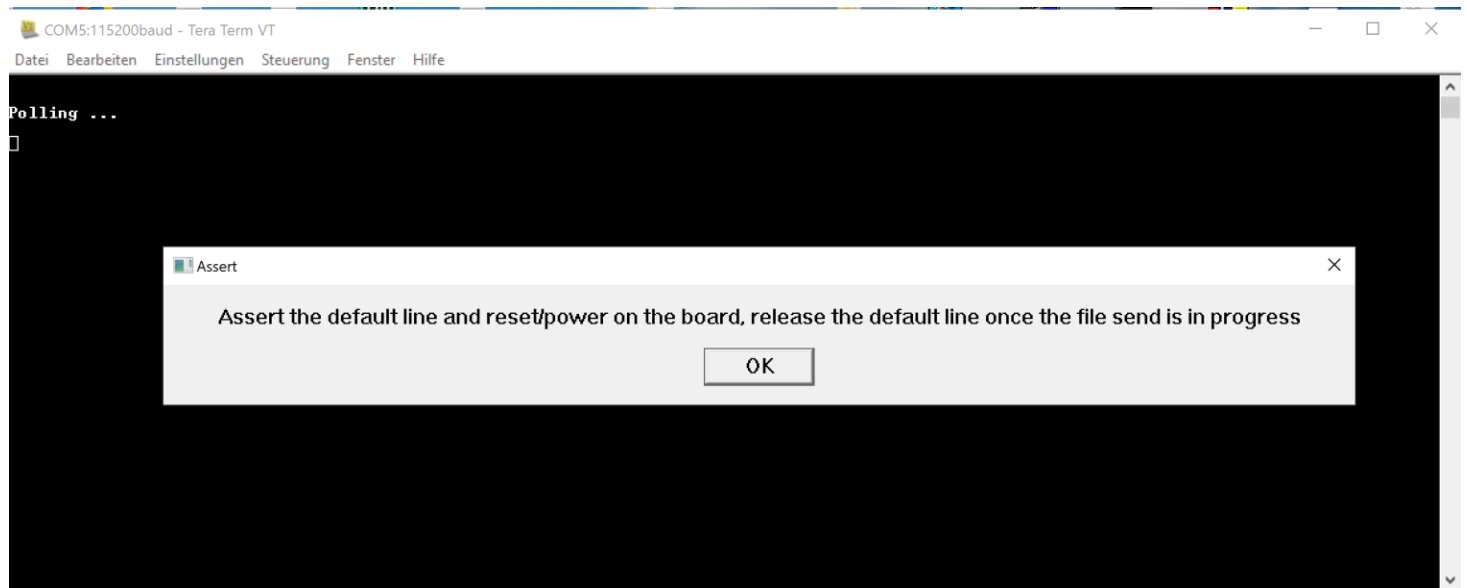


Step 4. Send the loader.

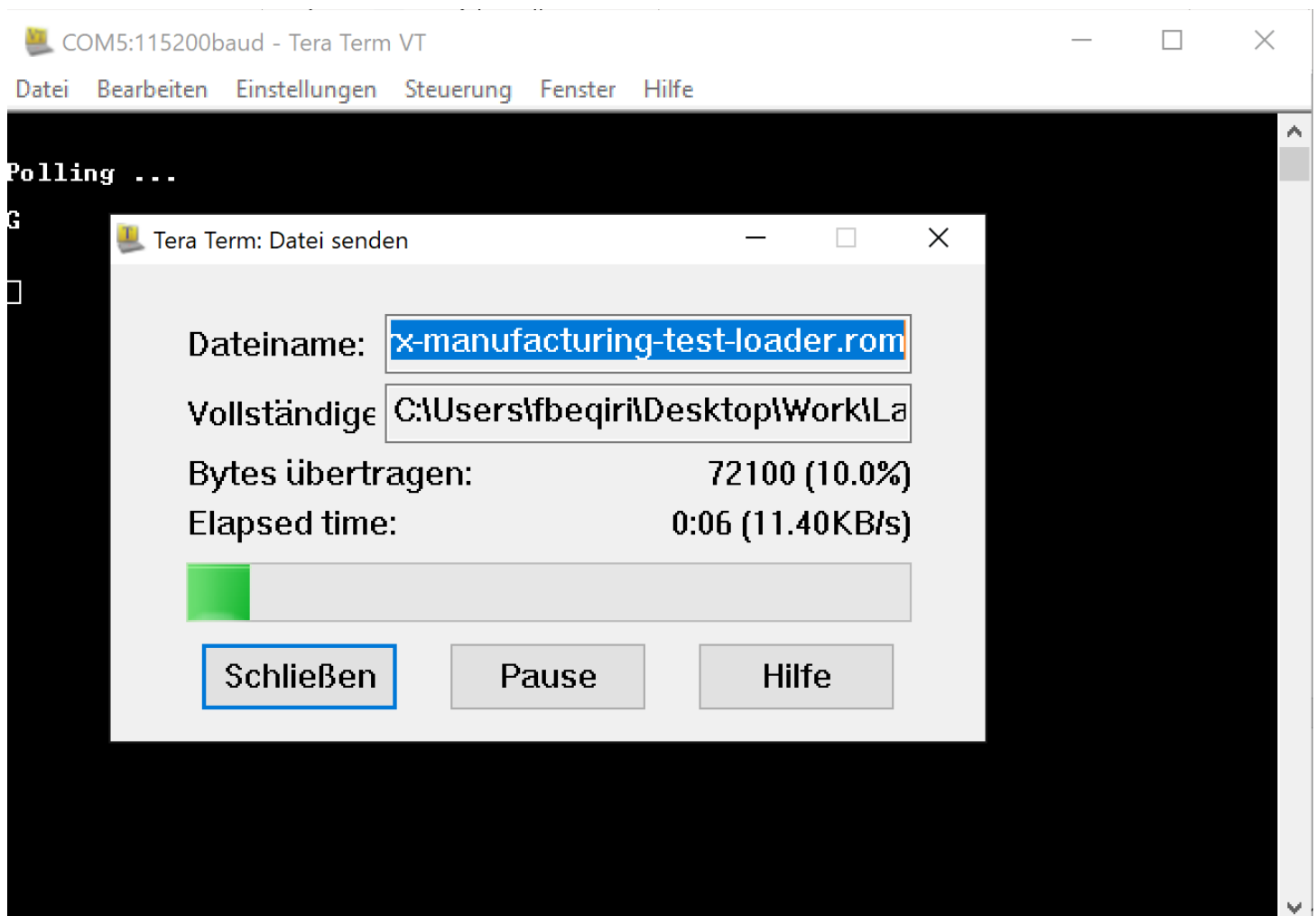
Click OK at the loader prompt.

With the power to the xPico 200 module turned off, hold down the **Defaults** button. Turn on the xPico 200 module.

Release the **Defaults** button.



This will start the loader script sending the 'ISL' sequence. The bootloader will examine the serial port, and finding the incoming 'ISL', will respond with a 'G'. Once it receives the 'G', the script will send over the selected loader file.



Step 5 (optional). Use the 'flash analyze' command to see what is currently in flash.

This is an optional step, but can help. Type ? to have a look of commands. You can see the currently installed version of firmware using 'flash analyze', if there is one, and if it is valid. You can re-run this command after installing new firmware as a double check to ensure it's installed correctly.

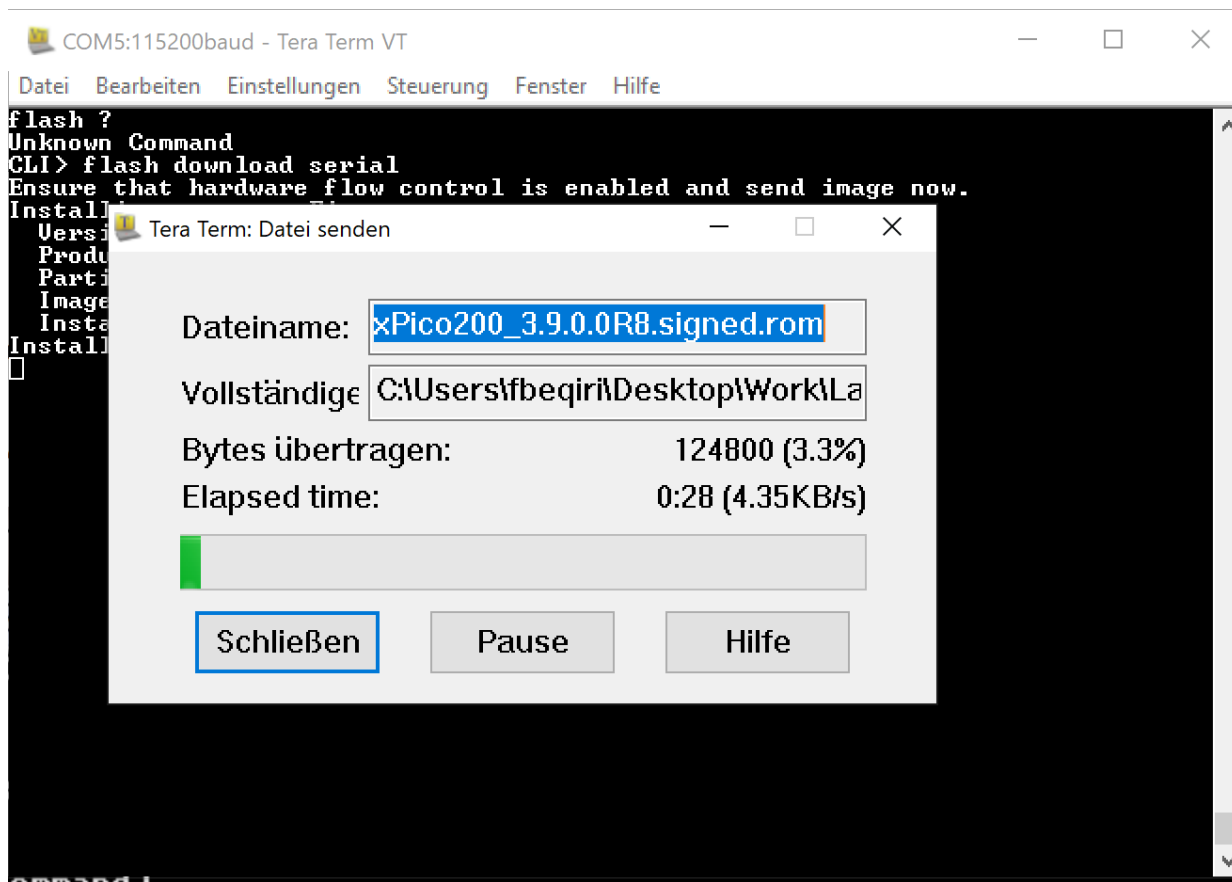
Below is a capture of my xPico200. Yours may look a little different.

```
COM5:115200baud - Tera Term VT
Datei Bearbeiten Einstellungen Steuerung Fenster Hilfe
CLI> ?
? [-v] [command]
affirm [on | off]
config
flash analyze
flash clean [start [length]]
flash download serial [port] [baud]
flash download network <ip_address> <filename>
flash info
flash protect [[write=on|off] level] [align[=top|bottom]]
otp keys
otp writeenable confirm [force]
otp writekey confirm
otp writersa primary|optional <key hash> confirm [force]
otp writesecurehit confirm
reboot
version
CLI> flash analyze
p
-----
Address      Type                Version             Size                Key Hash           State              Cm
-----
SPI Flash    [0x14000000 - 0x147FFFFFF]
0x14000000    Bootloader          1.2.0.0R2          0x000055F0         9AE651..          valid
0x14006000    -clean-             -                  0x00001600         -                  -
0x1401C000    Production Config   1.7.0.1T0+         0x00001000         -                  valid
0x1401D000    -clean-             -                  0x00003000         -                  -
0x14020000    Firmware            3.9.0.0R8          0x00280000         9AE651..          valid
0x142A0000    Firmware            3.7.0.0R1          0x00280000         9AE651..          valid
0x14520000    File System         -                  0x00170000         -                  -
0x14690000    File System         -                  0x00170000         -                  -
CLI>
```

Step 6. Download the firmware image.

The command is “flash download serial”. Select the firmware file. When the file is first sent over, it stalls for a bit while the location in flash is erased.

After a minute or so, bytes will start flowing.



Once the download is finished, you can re-run the flash analyze command to see how things look in flash:

```
COM5:115200baud - Tera Term VT
Datei Bearbeiten Einstellungen Steuerung Fenster Hilfe

flash ?
Unknown Command
CLI> flash download serial
Ensure that hardware flow control is enabled and send image now.
Installing:      Firmware
Version:        3.9.0.0R8
Product Code:   Y2
Partition Size: 0x00280000 (2621440)
Image Size:     0x001D40A0 (1917088)
Install Address: 0x14020000
Installing image to 0x14020000

Download finished, 1917088 total bytes
Install successful.
CLI> flash analyze

Address      Type                Version      Size      Key Hash  State  Cm
-----
SPI Flash   [0x14000000 - 0x147FFFFFFF]
0x14000000  Bootloader          1.2.0.0R2   0x000055F0 9AE651.. valid
0x14006000  -clean-             -           0x00016000 -         -
0x1401C000  Production Config  1.7.0.1T0+  0x00001000 -         valid
0x1401D000  -clean-             -           0x00003000 -         -
0x14020000  Firmware            3.9.0.0R8   0x00280000 9AE651.. valid
0x142A0000  Firmware            3.7.0.0R1   0x00280000 9AE651.. valid
0x14520000  File System         -           0x00170000 -         -
0x14690000  File System         -           0x00170000 -         -

CLI> █
```

